TQF.3

☐ Bachelor's Degree

☑ Master's Degree

Course Specification

Course Code: MTP5103
Course Title : Psychology for Mathematics Teachers
Credits : 3(3-0-6)

Program: Master of Arts Program in Mathematics Education
(International Program)

International College
Suan Sunandha Rajabhat University
(SSRUIC)

Semester : 1 Academic Year : 2016

Section 1 General Information

1. Code and Course Title :

Course Code: MTP5103

Course Title (English): Psychology for Mathematics Teachers

Course Title (Thai): จิตวิทยาสำหรับครูคณิตศาสตร์

2. Credits : 3(3-0-6)

3. Curriculum and Course Category :

3.1 Curriculum: Master of Arts Program in Mathematics Education (International Program)

3.2 Course Category:

☐ General Education ☑ Required Course

☐ Elective Course ☐ Others …….

4. Lecturer Responsible for Course and Instructional Course Lecturer (s) :

4.1 Lecturer Responsible for Course:

Assoc.Prof.Chaweewan Kaewsaiha

4.2 Instructional Course Lecturer(s):

(1) Assoc. Prof. Chaweewan Kaewsaiha

(2) Asst.Prof.Dr. Supotch Chaiyasang

5. Contact/Get in Touch

Building Number 21 Room Number 2121

Tel. 081-484-4361 E-mail chaweewan.ka@ssru.ac.th

6. Semester/ Year of Study

6.1 Semester: 1 Year of Study: 1

6.2 Number of the students enrolled: 3+

7. Pre-requisite Course (If any)

None

8. Co-requisite Course (If any)

None

9. Learning Location

Building Number: 21 Room Number: 2122

10. Last Date for Preparing and Revising this Course:

Date: 25 Month: July Year: 2016

Section 2 Aims and Objectives

1. Course Aims

At the end of this course, the student will reach to six domains in the following areas of performance:

1.1 Morals and Ethics to be developed:

(1) Have integrity, honesty and teaching profession ethics;
(2) Have discipline, self and social responsibility;
(3) Have awareness of actions affect other people.

1.2 Knowledge to be acquired:

(1) Have knowledge of basic psychology relating to human development;
(2) Have knowledge about the nature of the learners and his potentialities;
(3) Have knowledge of the problems of individual differences.

1.3 Cognitive Skills to be developed:

(1) Be able to assist the learners to learn and develop according to their potentially;
(2) Be able to provide learners with guidelines and assistance to have improved quality of life;
(3) Be able to guide the learners in right direction and motivate to learn.

1.4 Interpersonal Skills and Responsibility to be developed:

(1) Be responsible to prepare learners to meet the demands of the world in which they live;
(2) Be able to support the social, emotional and academic learning goals of all students at the individual, small group or classroom level;
(3) Care for, be merciful and kind to learners.

1.5 Numerical Analysis, Communication and Information Technology Skills to be developed:

(1) Be able to apply numerical analysis in solving real-world problems;
(2) Have good communication skills with students, parents, colleagues and administrators;
(3) Have information technology skills to collect data-based problem solving and decision making for classroom setting.

1.6 Learning Management Skills to be developed:

(1) Be able to design learning activities and learning environments within the context of a unit of learning and real world;
(2) Be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in learning;
(3) Be able to implement research-based, effective programs that prevent problems, enhance independence and promote optimal learning.

2. Objectives for Developing / Revising Course (content / learning process / assessment / etc.)

Using the Framework for 21st Century Learning process, students work to integrate supportive technologies, inquiry- and problem-based instructional approaches, and higher order thinking skills.

Section 3 Characteristics and Operation

1. Course Outline

Introduction to educational psychology; Student development and student diversity; learning and motivation; Guidance and counseling psychology; Theory and research about human learning and development.

จิตวิทยาการศึกษาเบื้องต้น พัฒนาการของนักเรียนและความหลากหลายของนักเรียน การเรียนรู้และแรงจูงใจ จิตวิทยาการแนะแนว และการให้คำปรึกษา ทฤษฎี และงานวิจัยเกี่ยวกับพัฒนาการและการเรียนรู้ของมนุษย์

2. Time Length per Semester (Lecture – hours / Practice – hours / Self Study – hours)

Lecture (hours)	Remedial Class (hours)	Practice/ Field Work/ Internship (hours)	Self Study (hours)
48	3	-	6

3. Time Length per Week for Individual Academic Consulting and Guidance

At least 1 hour per week

3.1 Self consulting at the lecturer's office:

Building Number: 21 Room Number: 2121

3.2 Consulting via office telephone/mobile phone: 081-484-4361

3.3 Consulting via E-Mail: chaweewan.ka@ssru.ac.th

Section 4 Developing Student's Learning Outcomes

According to TQF (Thailand Quality Framework: HEd.) and the Teachers'Council of Thailand with the standards of professional knowledge and experience for requirement courses, graduate students program in mathematics education should have essence of knowledge and competencies in psychology for teachers and learning management consisting of :

Essence of Knowledge

(1) Basic psychology relating to human development;
(2) Educational psychology;
(3) Guidance and counseling psychologies;

Competencies

(1) Understand the nature of learners;
(2) Able to assist the learners to learn and develop according to their potentiality;
(3) Able to provide learners with guidelines and assistance to have improved quality of life;
(4) Able to promote learners' aptitude and interest;

At the end of this course, the student will reach to six domains by applying the following teaching strategies and assessments:

1. Morals and Ethics

1.1 Morals and Ethics to be developed:

- (1) Have integrity, honesty and teaching profession ethics;
- (2) Have discipline, self and social responsibility;
- (3) Have awareness of actions affect other people.

1.2 Teaching Strategies

(1) Encourage the students to have integrity, honesty, and discipline such as unselfishness and self-control.

(2) Train the students to have characteristics of good characteristics with the teaching profession ethics.

1.3Assessment Strategies

(1) Authentic Assessment
(2) Portfolio Assessment
(3) Performance Assessment

2. Knowledge

2.1 Knowledge to be acquired:

- (1) Have knowledge of basic psychology relating to human development;
- (2) Have knowledge about the nature of the learners and his potentialities;
- (3) Have knowledge of the problems of individual differences.

2.2Teaching Strategies

(1) Using brainstorming to encourage students generate a large number of ideas and using higher order thinking skills.

(2) Using problem-based learning, research-based learning, and computer-based learning to enhance students' knowledge.

2.3Assessment Strategies

(1) Using rubrics for complex authentic task
(2) Using formative and summative tests
(3) Using report writing and presentation

3. Cognitive Skills

3.1Cognitive Skills to be developed:

- (1) Be able to assist the learners to learn and develop according to their potentially;
- (2) Be able to provide learners with guidelines and assistance to have improved quality of life;
- (3) Be able to guide the learners in right direction and motivate to learn.

3.2Teaching Strategies

(1) Encourage the students develop their higher thinking skills such as providing diversity environments for students to construct and implement their knowledge.

(2) Using problem-based learning, research-based learning, and computer-based learning to enhance student's thinking skills.

3.3 Assessment Strategies

(1) Using rubrics for complex procedures of problem solving

(2) Using formative and summative tests

(3) Using report writing and presentation

4. Interpersonal Skills and Responsibilities

4.1 Interpersonal Skills and Responsibilities to be developed:

- (1) Be responsible to prepare learners to meet the demands of the world in which they live;
- (2) Be able to support the social, emotional and academic learning goals of all students at the individual, small group or classroom level;
- (3) Care for, be merciful and kind to learners.

4.2 Teaching Strategies

(1) Using cooperative learning through interpersonal communication and interaction.

(2) Demonstrate the ability to apply appropriate interpersonal and teamwork skills in a variety of learning environments.

(3) Using problem-based learning, research-based learning, and computer-based learning to enhance students' experiences for further development their learning.

4.3 Assessment Strategies

(1) Using personality assessments

(2) Using rubrics for group work

(3) Using report writing and presentation

5. Numerical Analysis, Communication and Information Technology Skills

5.1 Numerical Analysis, Communication and Information Technology to be developed:

- (1) Be able to apply numerical analysis in solving real-world problems;
- (2) Have good communication skills with students, parents, colleagues and administrators;
- (3) Have information technology skills to collect data-based problem solving and decision making for classroom setting.

5.2 Teaching Strategies

(1) Using problem-based learning
(2) Using computer-based learning

5.3 Assessment Strategies

(1) Using interviewing and observation
(2) Using authentic task assessment
(3) Using report writing and presentation

6. Learning Management Skills

6.1 Learning Management Skills to be developed:

- (1) Be able to design learning activities and learning environments within the context of a unit of learning and real world;
- (2) Be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in learning;
- (3) Be able to implement research-based, effective programs that prevent problems, enhance independence and promote optimal learning.

6.2 Teaching Strategies

(1) Using real world problems within the classroom.
(2) Using innovation approaches to reduce anxiety and negativity attitude in learning.
(3) Using research-based learning to investigate the appropriate innovative in learning to prevent problems and promote optimal learning.

6.3 Assessment Strategies

(1) Using authentic task assessment
(2) Using report writing and presentation

Remark: Symbol ● means 'major responsibility'

Symbol ○ means 'minor responsibility'

Section 5 Lesson Plan and Assessment

1. Lesson Plan

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer(s)
1-3	Introduction to Educational Technology - Learning Theories	9	- Brainstorming - Video	Assoc.Prof. Chaweewan Asst.Prof.Dr. Supotch
4-5	Student development and student diversity	6	- Group work - Instructional Competence List	Assoc.Prof. Chaweewan Asst.Prof.Dr. Supotch
6-7	Effective Learning and Motivation	6	- Internet-Based Learning - Competencies-Based Performance List	Assoc.Prof. Chaweewan Asst.Prof.Dr. Supotch
8	Mid-Term	3	Oral Presentation	- Assoc.Prof. Chaweewan - Asst.Prof. Dr.Supotch
9-10	Guidance and Counseling Psychology	6	- Research-Based Learning - Case Study	- Assoc.Prof. Chaweewan - Asst.Prof. Dr.Supotch

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer(s)
11-12	Theory and Research in Learning Mathematics	6	- Discussion - Video	- Assoc.Prof. Chaweewan - Asst.Prof. Dr.Supotch
13-14	Theory and research in Learning for 21st Skills	6	- Research-Based Approach - Video	- Assoc.Prof. Chaweewan
15-16	Theory and research in Learning for 21st Skills (cont.)	6	- Research-Based Approach - Video	- Asst.Prof. Dr.Supotch
17	Final Examination	Take Home Test and Oral Presentation		

2. Learning Assessment Plan

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
1	**Morals and Ethics** (1) Have integrity, honesty and teaching profession ethics; (2) Have discipline, self and social responsibility; (3) Have awareness of actions affect other people.	(1) Authentic Assessment (2) Portfolio Assessment (3) Performance Assessment	Throughout Semester	10 %

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
2	**Knowledge** (1) Have knowledge of basic psychology relating to human development; (2) Have knowledge about the nature of the learners and his potentialities; (3) Have knowledge of the problems of individual differences.	(1) Using rubrics for complex authentic task (2) Using formative and summative tests (3) Using report writing and presentation	Throughout Semester	20 %
3	**Cognitive Skills** (1) Be able to assist the learners to learn and develop according to their potentially; (2) Be able to provide learners with guidelines and assistance to have improved quality of life; (3) Be able to guide the learners in right direction and motivate to learn.	(1) Using rubrics for complex procedures of problem solving (2) Using formative and summative tests (3) Using report writing and presentation	Throughout Semester	20 %

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
4	**Interpersonal Skills and Responsibilities** (1) Be responsible to prepare learners to meet the demands of the world in which they live; (2) Be able to support the social, emotional and academic learning goals of all students at the individual, small group or classroom level; (3) Care for, be merciful and kind to learners.	(1) Using personality assessments (2) Using rubrics for group work (3) Using report writing and presentation	Throughout Semester	15 %
5	**Numerical Analysis, Communication and Information Technology Skills** (1) Be able to apply numerical analysis in solving real-world problems; (2) Have good communication skills with students, parents, colleagues and administrators;	(1) Using interviewing and observation (2) Using authentic task assessment (3) Using report writing and presentation	Throughout semester	15 %

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
	(3) Have information technology skills to collect data-based problem solving and decision making for classroom setting.			
6	**Learning Management Skills** (1) Be able to design learning activities and learning environments within the context of a unit of learning and real world; (2) Be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in learning; (3) Be able to implement research-based, effective programs that prevent problems, enhance independence and promote optimal learning.	(1) Using authentic task assessment (2) Using report writing and presentation	Throughout semester	20 %

Section 6 Learning and Teaching Resources

1. Textbook and Main Documents

Fetsco, T. & McClure, J.(2005). **Educational Psychology : An Integrated Approach to Classroom Decision.** Boston: Pearson Education, Inc.

Santrock, John W.(2008). **Educational Psychology:3rd ed.** Boston: McGraw-Hill.

2. Important Documents for Extra Study

Bergeson, Terry. (2000). **Using Research to Shift From the "Yesterday" Mind to the "Tomorrow"Mind : Teaching and Learning Mathematics.** Retrieved March 21, 2013, from http://www.k12.wa.us

3. Suggestion Information (Printing Materials/Website/CD/Others)

Prakash, J. (2013). What is the important of Educational Psychology for Teachers. Retrieved March 21, 2013, from http://www.preservearticles.com

Section 7 Course Evaluation and Revising

1. **Strategies for Course Evaluation by Students**

Using survey questions to collect information from the students' opinions to improve the course and enhance the curriculum. Examples of questions:

a. Content objectives were made clear to the students.
b. The content was organized around the objectives.
c. Content was sufficiently integrated.
d. Content was sufficiently integrated with the rest of the first year curriculum.
e. The instructional materials used were effectively.
f. The learning methods appropriate assessed the students' understanding of the content.
g. Overall, Students are satisfied with the quality of this course .

…….. etc. ……

2. **Strategies for Course Evaluation by Lecturer**

2.1 Lecturers team observe the class and discuss the results as follow:

a. The lecturer is well prepared for class sessions.
b. The lecturer answers questions carefully and completely.
c. The lecturer uses examples to make the materials easy to understand.
d. The lecturer stimulated interest in the course.
e. The lecturer made the course material interesting.
f. The lecturer is knowledgeable about the topics presented in this course.
g. The lecturer treats students respectfully.
h. The lecturer is fair in dealing with students.
i. The lecturer makes students feel comfortable about asking question.

(10) Course assignment are interesting and stimulating.
(11) The lecturer's use of technology enhanced learning in the classroom.

…….. etc. ……

2.2 The director / head of program construct assessment items to evaluate four dimensions of lecturer's competencies : teaching skills, organization and presentation of materials, management of the learning environment, and teaching attitudes.

3. **Teaching Revision**

Lecturer revises teaching / learning process based on the results from the students' survey questions, the lecturer team's observation, and classroom research.

4. **Feedback for Achievement Standards**

International College Administrator Committee monitor to assessment process and Grading (TQF.5).

5. **Methodology and Planning for Course Review and Improvement**

(1) Revise and develop course structure and process every two years.
(2) Assign different lecturers teach this course to enhance students' performance.

Curriculum Mapping Illustrating the Distribution of Program Standard Learning Outcomes to Course Level

Courses	1. Morals and Ethics			2. Knowledge			3. Cognitive Skills			4. Interpersonal Skills and Responsibility			5. Numerical Analysis, Communication and Information Technology Skills			6. Learning Management Skills		
Course Category: Requirement Course--Teaching Profession Core Course	● **Major Responsibility**												○ **Minor Responsibility**					
	1	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
Course Code: MTP5103 Course Title: Psychology for Mathematics Teachers	●	○	○	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●